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FORUM

ASPIRING TO A BETTER LIFE, OR SURVIVING ON THE MINIMUM?

Explaining the discrepancies between Hungarians' declared and real financial situation

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ABSTRACT *Recent comparison of the consumer confidence of Hungarians with their spending reveals numerous cases when individuals became less confident about their financial situation (expecting it to get worse), yet continued – and even increased – spending, rather contradicting initial expectations. This discrepancy cannot be explained by general, national financial indicators, as income and inflation only provide a partial understanding of the difference between confidence and spending. A review of further determinants highlights the similarities between trends in confidence, poverty, and the social gap, suggesting that the revision and consideration of social benchmarks and previous income trends are significant determinants of consumer confidence and spending.*

KEYWORDS: *confidence, spending, income, benchmark, inequality, poverty*
Journal of Economic Lecture (JEL): D12, E21, H30

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INTRODUCTION

In Hungary in 2012 research institutes measured a significant decline in consumer confidence, a metric constructed to capture the self-evaluations of individuals regarding their financial situation. According to international research by Nielsen, a global market research agency, Hungary reached the state of 'least confident nation in the world' as confidence declined by 66 percent to one-third of the level of 2005. Economic institutions were expecting this lack of confidence to appear as a reduction in spending, but in reality Hungarians increased their spending significantly. Although this increase in spending occurred during a time of inflation, price increases were not compensated for by the volume of purchases; on the contrary, just as in the preceding year the increase in spending even exceeded inflation, in parallel with the decline in consumer confidence.

This paper presents this phenomenon in detail and analyzes it in a broader timeframe. While the first chapter reveals and explains the observed discrepancy, the following chapters enlist the most important theories from the perspective of income and spending, and compare them to secondary data to test the plausibility of each.

The main goal of the paper is thus to present a list of the most relevant determinants from the perspective of income, and to test each of them with secondary data in order to construct hypotheses that may explain the discrepancy. In addition, the paper provides suggestions for further research: for example, the findings presented herein should be supplemented using theories from other approaches relating to the role of values, trust and reliability in society. From these the most plausible should be statistically analyzed to quantify their impact on spending and confidence; these latter two steps potentially being the focus of separate research efforts and articles.

CONFIDENCE AND SPENDING

Expectations about the reliability of social and economic measures

It is a fundamental expectation that social, economic and political sciences should produce and maintain reliable explanations and forecasts. Market research companies conduct surveys to understand the perceptions and opinions of individuals. Economic and statistical institutions measure macro-level trends,

including GDP, spending, and unemployment. Political organizations conduct qualitative and quantitative research to reveal how people may be addressed during an election period, or whether initiatives have achieved their expected societal goals. But do these measures really generate the expected results without introducing any temporary bias that could ultimately change the final conclusions?

In most cases, the answer to the question above is "yes". Economic, political and social measures have already been developed at such a high level that the above expectations can in general be met. However, measures that "in general" work, but fail in some situations (of potentially major importance) are not appreciated by governments, political parties or companies. Manufacturing and servicing companies may invest millions of euros into innovations that should not fail due to the incorrect mapping of consumer needs. Political parties may invest several years of campaign work and a significant amount of money into candidate or parliamentary elections, and the last thing they wish is for their efforts to ultimately (and perhaps unpredictably) fail. In the cases when such measures (and ultimately the predictions based on them – be they economic, social or political) fail, this shakes the foundations of whole scientific disciplines and may set back trust in market research, or even broader economic sociology.

However, numerous cases from the recent past exemplify such failed predictions. In Hungary in 2002, the governing party Fidesz was forecast to win the parliamentary elections, but failed to do so. A more recent example is the 2016 U.S. presidential election, in which all the major indicators predicted a win for the Democratic candidate, yet the Republican candidate carried the day.

Unfortunately, it is not only temporary measures that focus on ad-hoc referendums or elections every four years that occasionally fail. Ongoing social and economic indicators that are embedded in everyday economic and financial processes can be biased as well. Although these latter cases may not receive as much attention as some of the failures of ad-hoc measures, this does not mean that their impact is less. On the contrary, considering that ongoing measures tend to work in general, temporary biases may be neglected and left without explanation or methodological improvement. Furthermore, due to the duration and reoccurrence of these biases of regularly applied measures, the total impact of such failures on whole economies and society may even be much greater than the failure of temporary measures. This paper describes a case of when a long-term measure failed to meet initial expectations, and reveals the determinants that should be additionally considered and embedded into the methodological process of its analysis. The case suggests the need for more caution when drawing consequences and creating expectations based on such indicators.

Decline in the confidence of Hungarians

By the end of 2011/beginning of 2012, consumer confidence in Hungary suffered a significant decline. The measure 'consumer confidence' captures the subjective personal evaluations of the financial situation of individuals. This decline in confidence indicates that Hungarian people were less confident about the adequacy of their financial situation to cover their present and future spending.

Nielsen, one of the most important global market research companies, measured consumer confidence in 58 countries across the world using a sample of more than 28000 respondents. Results indicated that by the last quarter of 2011, and again by the second quarter of 2012, Hungary's inhabitants had the lowest level of consumer confidence across the measured 58 countries.

The Consumer Confidence Index of Nielsen (referred to later as 'confidence') is constructed from information about the following three items:

a) individuals' predictions about their job prospects over the coming 12 months,
b) feelings about personal finances for the next 12 months,
c) to what extent individuals consider their current financial situation to be adequate in terms of their ability to purchase the goods they want and need.

Responses to questions about these issues are combined to create a final index number ranging from 0 to 200, where 0 means a total lack of confidence, and 200 the highest level of confidence[2]. In the second quarter of 2012, the highest result for any of the 50 countries that were examined was 120 points (Indonesia), and the global average was 90 points. Hungary had the lowest consumer confidence, with 30 points. Since the time Nielsen started measuring confidence in Hungary in 2005, this was the lowest figure, although this low was reached again within the following nine months (the first time was the fourth quarter of 2011).

In order to understand the implications of this result, the low level of Hungarian confidence can be analyzed through a cross-country comparison. The best benchmarks are on the one hand those countries that are most similar to Hungary in their historical and geopolitical background (Poland, the Czech Republic and Romania, referred to later on as Central and Eastern European countries), as well as those Southern European countries that were impacted most severely by the global economic crisis of 2008, and which suffered the greatest setbacks due to it (Portugal, Spain, Italy and Greece).

2 The sample was representative in terms of the age and sex of Hungarian internet users. In 2012, the penetration of internet users was 69%.

The first measure from the comparison that is analyzed as a possible explanation for the low level of Hungarian confidence is GDP in Purchasing Power Standards (PPS). According to the World Bank (2008) "Gross domestic product (GDP) is the measure most often used to quantify economies' economic activity, and GDP and consumption per capita are basic indicators of economic productivity and well-being". The hypothesis is that the low GDP of Hungary could be a determinant of low confidence.

Secondary data from Eurostat (2015) support this assumption when looking only at the Southern European countries that have a higher GDP in PPS and higher confidence; however, Central and Eastern European countries that have similar GDP per PPS to Hungary (ranging from -18 to +26 percent compared to Hungary in 2012) had confidence levels significantly exceeding those of Hungary (from 107 to 137 percent). This situation contradicts the expectation that the confidence level in Hungary on an international comparison is determined by GDP.

However, GDP represents the value of goods and services generated by a country, and is only indirectly linked to the amount of income that people can spend (which fact may also determine confidence). For a more relevant perspective, household consumption expenditure should be considered. Findings in this case are quite similar to those for GDP: in terms of household spending, Southern European countries spend more than Hungary, but the spending of Central and Eastern European countries ranges only from minus 8 to plus 33 percent compared to Hungary in 2012 (Eurostat 2015), while confidence exceeds the Hungarian level by 107-133 percent. Even more interestingly, the Czech Republic, whose inhabitants had the highest confidence among the countries in the comparison (exceeding Hungary's by 133%), had a household consumption level, which was 8 percent lower than the Hungarian level. These finding disprove the hypothesis that the general economic or spending level explains the low level of Hungarian confidence in international comparison.

Contradictory expectations about spending

Even though the low level of Hungarian confidence is an interesting phenomenon, it is just one sign that should draw attention to an even more important one: the trend in confidence and its non-linear correlation with spending. Hungary suffered the most significant decline in confidence among the countries in the comparison during several different time periods. Comparison of the level of confidence in 2012 to previous years reveals that from 2005 (-62

percent since the start of measurement), from 2008 (-51 percent since the start of the global economic depression) and from 2010 (-43 percent since the start of the latest major decline in confidence in Hungary) no other country lost as much confidence as Hungary. What is the reason for such decline? The answer to this question may be found in the relationship of confidence to spending, which factors are closely linked. The main hypothesis of this research is based on the expectation that consumer confidence and spending are correlated; an assumption that has been validated by the findings of several theoretical and empirical pieces of research.

According to the permanent income hypothesis of Milton Friedman (1957), the consumption of individuals is determined not just by their absolute and current income, but also by their expected level of income in the future. As a result, financial expectations – measured using two of the three questions that construct the confidence index – should be reflected by the confidence measure. If this claim holds true, it means that individuals' negative expectations regarding their financial situation (i.e. declining confidence) can serve as a proxy indicator for a decline in spending.

Research by Vadas (2003) analyzed the suitability of the confidence index (specifically, the confidence index of GKI, a major Hungarian economic research institute) for forecasting consumer spending. This analysis was based on the works of Bram and Ludvigson (1998) who investigated whether consumer sentiment could be used to predict future consumer spending in the U.S prior to the 1990s. The empirical findings of Bram and Ludvigson led the authors to conclude that "consumer sentiment can help predict future movements in consumer spending". Findings of Vadas (2003) about Hungary confirmed this hypothesis by revealing that the above expectation, based on the permanent income hypothesis, is not just a theory but applies in practice: the Hungarian consumer confidence index explained 51 percent of variability in the growth rate of consumption spending. These findings strongly support the initial hypothesis that consumer confidence is correlated to consumer spending in Hungary.

Such expectations are present not only in theoretical or academic work, but are institutionalized in the economic and financial sphere as well. The GKI Institute, one of the most important research companies in Hungary, is an institution with a good reputation and solid methodology for measuring consumer confidence[3].

3 The consumer confidence survey of the GKI uses answers to five questions that focus on the "responses to questions regarding the actual and the expected financial situation of households, the actual and the expected economic situation of the country, and the adequacy of purchase of higher value consumer goods" (GKI 2012). The final index value ranges from minus 100 to plus 100. The survey is based on a sample of 1000 respondents, and results are representative for age, sex, education and type of location.

According to the explanation of their method for measuring prosperity, one fundamental expectation of the GKI (2015) is that consumer confidence can be used to forecast spending[4]. Furthermore, the National Bank of Hungary (MNB) specifies in their handbook concerning the use of Hungarian economic data (Ferenczi – Jakab 2002) that "the consumer confidence index of GKI is a lagged indicator of consumption spending". The basis of this claim is the confidence index of GKI and the findings of Vadas, noted above. What the handbook further mentions is that this practice of using consumer confidence to forecast spending is widespread (e.g. in use at national banks such as the Bank of England, and Bank of Canada).

Both GKI's and Nielsen's measures show that, between 2005 and 2012, confidence significantly declined. Although there are differences between the two indexes in the intermediary period, the change is consistent across both measures, which both also identify a second wave of decline between 2010 and 2012. Based on the previously mentioned theoretical and research findings, the main hypothesis of the research described herein is that such a decline in consumer confidence should indicate a decline in consumer spending.

However, according to the Hungarian Central Statistical Office (KSH), household spending increased by 29.7 percent between 2005 and 2012, and by 8.0 percent between 2010 and 2012. In comparison, in the same time period confidence declined by 34 62 percent from 2005, and by 30 43 percent after 2010, as measured by GKI[5] and Nielsen, respectively. This initial comparison of spending and confidence suggests that we reject the hypothesis that a decline in confidence results in a decline in spending. The finding indicates that when individuals perceive their financial situation to be inadequate for making purchases, and when they do not expect their financial and employment situation to improve in the near future, they do not start saving, but instead may increase spending.

This discrepancy can be observed not only in short- or long-term comparisons, but for several distinct periods. Even at the start of the long period of comparison,

4 Although GKI only uses the confidence index to forecast the volume of retail trade purchases, the findings of Vadas (2003) reveal that it is not only the volume but also the actual value of consumption that may be determined by consumer confidence. For the remaining part of the research, the main approach is based on the findings of Vadas, and the value of spending is used as the factor or reference, while the volume of purchases is considered a separate and limited secondary factor, rather incorporated as a component of total spending.

5 The GKI consumer confidence index was adjusted to align it with the Nielsen confidence index. The initial scale of the GKI index ranged from minus 100 to plus 100, while in the adjusted version values were shifted upwards by 100 to bring them in line with Nielsen scale, which ranges from 0 to 200. This modification was required to harmonize the trend dynamics.

between 2005 and 2007, both confidence measures indicate a decline from year to year, while spending grew. Between 2010 and 2012 there was again a major decline in confidence, in parallel with increased spending. A similar situation occurred again in 2015 when confidence was stable or declined, while spending grew. What may explain the discrepancy between confidence and spending? The following chapter presents some possible explanations from the perspective of income, with the intention of creating an initial filter that can be used to examine (e.g. prior to a regression analysis) whether the identified factors determine confidence and spending.

THEORIES AND POSSIBLE EXPLANATIONS

The main presumption of the research described herein is based on the permanent income hypothesis and the further research and findings that build on it. According to this hypothesis, it is not just the absolute level of income or its changes that determine spending, but also the expected level of income. This approach relies significantly on the perceptions of individuals about the adequacy of their finances compared to the desired or required spending, about which factors such as future income or employment situation may also be taken into consideration. Subjective evaluation of an individual's financial situation and the future status of income and employment are two of three components of the consumer confidence index. The main conclusion that may be drawn from this – based on several empirical pieces of research in the U.S and Hungary, as well as on the general practices of research agencies and national banks, as previously described – is that consumer confidence should forecast spending. Translating this assumption into the permanent income hypothesis means that expectations towards individual financial situations should indeed determine spending, so that a decline in confidence should result in a decline in spending, and vice versa. However, the comparison of secondary data indicates that this hypothesis is invalid.

The main goal of this and the following sections is to describe the most relevant theories that can help explain the discrepancy indicated by the secondary data. The intention is to identify the most influential determinants that could be used in a regression analysis in later research.

Income as a partial explanation

Those who are familiar with the economic sciences, especially with monetary policy theory, may consider the Keynesian approach (Keynes 1936) appropriate for explaining the observed situation. This theory suggests that aggregate consumption mainly depends on aggregate income. In the examined case, this could mean two things.

The first scenario involves income growth over the years that exceeds growth in spending. This scenario could provide a partial, but well-founded explanation: Hungarians may have downscaled their spending due to a decline in confidence; however, thanks to the increase in income, this downscaling would be relative to a growing income and would still lead to – slightly lower – growth in absolute spending. Even though this approach may appear to be promising, it leaves open and even emphasizes a very important question: why would consumer confidence decline in a time of both income and spending growth, and even more importantly, when income growth even exceeds spending?

The second scenario consists of income and spending growth of similar magnitude. This would mean that changes in income could indeed determine changes in spending. However, this raises the question why individuals would use their increased income to maintain their level of spending, rather than reduce it, considering that a decline in confidence should reflect a decline in the self-evaluation of financial circumstances. This puzzle may be combined with the question that the validation of the first scenario leaves us with (why would confidence decline at a time of financial prosperity?) and may also raise the question why would spending not decline with confidence at a time when income growth could hardly cover growth in spending?

With the help of data from KSH (2015) about household spending and the net income of households, the above scenarios can be evaluated. The most important condition to consider in this comparison is that even though trends and changes in income and spending may seem to be strongly correlated – an assumption that may be easily constructed even after a cursory look at the data – the time lag between income and spending should be included in any calculations. According to Katona and Mueller (1968), "an increase in spending follows in income gain only with some lag, which may range from six to nine months". In the present case, this means that the magnitude and direction of each year's change in spending should correlate to the magnitude and direction of income of both the year under analysis and the year before

that (almost as if the average of the two years' income could be correlated to the spending of a given year)[6].

Data from KSH (2015) indicate that income may indeed provide a very valid explanation for spending trends. For each and every period of observation (between 2005 and 2012), either the actual or 'delayed' level of income is of a similar magnitude and trend as actual spending[7]. In 2006 and 2007 the change in spending appear to be in line with that year's change in income (4.6 and 4.9 percent for spending, 4.6 and 4.2 percent for income, respectively), while in 2008 the 6.2 percent spending growth may have been the result of the previous year's income growth of 4.2 percent. Between 2009 and 2011 the magnitude and direction of the change in spending seems to reflect the income change of the given years (spending declined by -0.3, then rose by 3.3 and 4.7 percent, while income changed by -0.2 percent, then by 8.3 and 5.3 percent, respectively). Following that period, the change of spending in 2012 (3.2 percent) may be a result of the income change of the previous year (5.3 percent).

Considering that the trend and magnitude of changes in income and spending strongly suggest that income is the main determinant of spending, the following issues were investigated to ascertain whether the first or the second hypothetical scenario better reflected reality (with regard to income exceeding spending): a) if confidence had declined in an environment of prosperity, or b) whether individuals did not reduce their spending when such growth in spending could have exceeded growth in income.

What the data indicates is that both situations existed, but the second scenario more accurately describes the whole duration of study. Calculation of only the average of the changes across the year of observation indicates that while spending grew by a yearly 3.8 percent on average, income grew by only 3.1 percent. This means that what we observe is not a "relative cut-back" of spending compared to a more intensely growing income, rather a spending increasing more rapidly than how income improved; quite the opposite of what the first scenario would suggest.

Splitting this period of examination into two periods (2005 – 2009, and 2010 – 2012) reveals that while in the first period growth in spending (3.9 percent) significantly exceeded income growth (1.9 percent), in the second period it was actually income (4.7 percent) that exceeded spending (3.7 percent). This may

6 Comparable data is only available on an annual basis, so the impact of the estimated lag cannot be precisely calculated. It is assumed to represent a value between the two chronological points (the value in the preceding and in the year under analysis).

7 It would be interesting to analyze whether it is the actual or the delayed level of income that determines spending, and how one affects the other. However, such analysis is beyond the limitations of this paper and should be separately conducted.

create the impression that individuals felt better about their financial situation in the second period, yet the reality is slightly different. This second finding creates a further discrepancy as it indicates that it was actually between 2010 and 2012 when confidence went through a major decline, although in this period financial circumstances improved more than in the preceding years.

Summarizing these findings, we may conclude that although income does seem to determine spending and explain the trend to growth, this situation amplifies the concerns raised initially. What is the explanation for the decline in consumer confidence at a time when income and spending grew – especially at times like between 2010 and 2012 when income growth exceeded spending growth? In addition, why did people not reduce their spending during a time of declining consumer confidence? The following chapters provide an answer to the question of why confidence declined, but the answer to the latter question suggests the consideration of inflation as a possible explanatory factor.

The reason why inflation should be taken into consideration is to evaluate the assumption that the increase in spending was not driven by individuals and households intentionally spending more money, but was rather an inevitable result of consumers trying to maintain the quantity of their consumption at a time when this was more costly (due to increases in prices). If it can be shown that individuals intentionally spent more, this may reflect – in general, and according to the empirical research noted previously – an increase in the self-evaluation of personal financial situations. However, an inevitable and unintentional increase in spending driven by inflation would rather reflect the fact that individuals may have struggled to maintain the quality and quantity of their consumption, which hardship was reflected in the decline of consumer confidence. As a result, if inflation drives spending growth, it makes the decline in confidence 'reasonable', indicating that individuals struggled to maintain their consumption and life quality.

If the assumption about inflation is valid, we should observe inflation levels exceeding the level of the spending increase: the level of change in spending should fall between the level of inflation (if the full amount of inflation is absorbed by consumers) and neutral or negative nominal growth (if consumers decreased their total purchases to compensate for increases in price).

Data from KSH (2015) indicate that inflation may indeed be a possible driver of the change in spending; however, they do not seem to fully explain the whole phenomenon. Prices increased every year between 2005 and 2012 at a yearly average of 5.2 percent. At this level, the general increase exceeds the average increase in spending (3.8 percent) as well as increases in income (3.1 percent), so it may be assumed that price increases were an important driver of the increase in spending and the decline in confidence.

However, a more granular look at the data reveals that even though the long-term general trend supports the main assumption that inflation is a strong driver of the increase in consumption, this solution leaves important questions unanswered. The findings suggest that, as inflation drove an increase in spending and people were struggling to maintain consumption levels, consumer confidence declined over the years. However, there are several time periods when this assumption is questionable. From 2005 to 2006, income grew at a higher pace (4.6 percent) than inflation, which means that individuals would have been able to afford to cover price increases, and probably even did so, because spending increased more (at 4.6 percent) than prices (3.9 percent). Yet at such times of potential financial prosperity, consumer confidence declined by 11-13 percent[8]. Another period when income growth exceeded inflation was in 2010 and 2011, when income grew yearly by 8.3 and 5.3 percent and inflation was only 4.9 and 3.9 percent, respectively. In 2011 spending growth even exceeded (at 4.7 percent) inflation (3.9 percent) suggesting that in these two years individuals were willing to spend more from year to year, fundamentally challenging the link with consumer confidence which started to significantly decline after the second half of 2010 and hit its lowest point in the last period of 2011 and first periods of 2012.

In summary, we conclude that based on the secondary data it is reasonable to assume that an increase in spending was enabled by an increase in income, and that inflation may be one of the important reasons for this happening during a period when consumer confidence was on a general downward slope. However, the fact of an increase in income that covers spending raises the question why confidence also declined in such prospering financial circumstances. Inflation may be one of the explanations for the majority of the examined periods, but there are several points in time (like the changes between 2010 and 2012) for which it is not a valid answer. Why did confidence decline between 2010 and 2012, even if income grew significantly and the increase in spending suggests that people perceived this income growth to be sustainable?

Benchmarking

The main hypothesis of this research, which is designed to help understand the discrepancy between confidence and spending, originates from the theory of permanent income. Several theories and pieces of empirical research support

8 GKI's adjusted measure and Nielsen's normal measure, average yearly change from 2005 to 2006.

the initial assumption that confidence and spending are correlated. In the cases where this assumption was not valid, the first measure for consideration was income, based on the Keynesian approach to spending. Fortunately, this approach provided valid findings, being that income – and even inflation – may provide a partial explanation for the observed discrepancy. Considering that this latter explanation approached the question from the perspective of income, it was considered advisable to maintain the same approach in the research described in this following chapter, which seeks further possible explanations for the cases that could not be explained, by the Keynesian approach. The theories in this chapter are based on the relative income hypothesis of Brady and Friedman (1947).

The main assumption of the relative income hypothesis is that, besides absolute income, consumption is also determined by the distribution of income in society or community. What this means in the examined case is that it is not only the absolute level and absolute changes of income that should be considered as determinants of consumption, but the place of income within a benchmarking environment (henceforth, 'benchmarking').

Benchmarking can have an impact when an individual's aspired-to level of income or spending departs from their real income and spending. This can lead to a decline in consumer confidence as the individual's financial situation deteriorates in respect of the level aspired to. This type of negative impact on confidence may even happen in an environment when general income actually grows. Accordingly, benchmarking may provide a valid and thorough explanation for those cases when income and inflation only explain increases in spending, but fail to provide sufficient explanation for declines in confidence.

There are several theoretical findings that suggest the consideration of benchmarking as a determinant in the examined case. Venkat and Ogden (1996) noted that "…human beings have a drive to evaluate their opinions and abilities through comparison with other people" so that "social comparisons may play an important role in shaping consumer judgments". Ariely (2008) also highlighted the importance of benchmarking, stating that "A man's satisfaction with his salary depends on...whether he makes more than his wife's sister's husband". Furthermore, Easterlin (1995) also emphasized the importance of comparisons in subjective self-evaluations, arguing that "Judgments of personal well-being are made by comparing one's objective status with subjective living level norms, which is significantly influenced by the average level of living of society as a whole. Over time, however, a general increase in individual incomes raises societal average". Coleman (1990) also noted that a widening gap in benchmarking could lead to a decline in confidence: "When there is rapid improvement in conditions, those of some improve more rapidly than

those of others. Those for whom conditions are not improving very rapidly see others, perhaps no more qualified, doing much better than they are. It is from this perspective that they perceive a widening gap, which leads them to feel frustration".

Furthermore, Skrabski, Kopp and Kawachi (2004) noted that "the theory of relative deprivation suggests that invidious social comparisons triggered during periods of rapid economic change may lead to stress and frustration, especially among those who are left behind on the socioeconomic hierarchy". In addition to this, findings by Kopp and Skrabski (2000) proved this situation to be valid for Hungary, arguing that "…the deprived strata live their life in a continuous chronic stress and uncertainty".

As noted in the previous chapter, income and inflation do not seem to be the main determinants of the decline in confidence between 2010 and 2012. The way benchmarking may play a role in the change of confidence is two-fold: on one hand, income benchmarks may have risen, while on the other hand, the financial circumstances of a part of society could have deteriorated. The prior case would presumably be indicated by income gap widening. The latter case could be reflected in declines in the income of some part of society, even if the average income in Hungary grew.

KSH indicators (2015) show that the first situation, a widening social gap, may indeed be a valid explanation for the outlier periods. Between 2010 and 2012, the Gini-coefficient increased from 26.9 to 28.0 points. The percentage of individuals living in severe material deprivation increased from 23.4 to 27.8 percent. Relative poverty increased from 18.2 to 21.0 percent. Adding another year into this comparison (2009) further amplifies this trend, as all measures show greater increase in the three years leading up to 2012. A further interesting finding is that this trend seems to have peaked in 2012, after which a period of stability or even improvement occurred, just as with consumer confidence, which started to improve again after 2012.

Based on this data, it would be realistic to assume that the income gap in society increased between 2010 and 2012, further increasing the average benchmark relative to the income of the less fortunate part of society. On the other hand, the absolute financial situation of a part of society also deteriorated, driven by a decline in income. A detailed split of the net income of the employed (KSH 2015) reveals that, although there was an increase from 2010 to 2011 (6.4 percent) and then until 2012 as well (2.1 percent), this increase was not perfectly distributed. From 2010 to 2011, those who were employed in the private sphere enjoyed a net income increase of 8 percent, while public servants, numerically 28 percent of all those employed, experienced only a 2 percent increase. Even more interestingly, from 2011 to 2012 employees in the private sphere received

a 4.4 percent increase in net income, while public servants even suffered a 3.4 percent decrease. Although income levels represent just one way of segmenting society, it is clearly visible even from this perspective that at least 28 percent of society experienced not just their financial situation declining relative to the benchmark by 2012, but also a deterioration in their actual financial situation. These findings suggest that an increase in income inequality is a possible determinant of the decline in confidence between 2010 and 2012.

Referencing

Besides the above-mentioned perspective of relative income, which considers consumption in relationship to the distribution of income in a broader environment, which defines aspirations, there is another perspective that should be analyzed. According to findings of Duesenberry (1949), it is not only the current absolute and the relative level of income that determines consumption, but also individuals' past level of income. The main reason for this is that individuals or households in general strive to maintain or even increase their level of consumption and the basis of their aspirations is defined by their past experience, especially by the highest level previously achieved. Easterlin (1995) also claims that "the utility one attaches to one's current income level depends also on one's past income". In this research, this phenomenon is called referencing, and is the main focus of this section.

The impact of referencing might be quite important in a country such as Hungary that underwent several major changes in the previous decades, including times of significant development of income and consumption, followed by a setback after the global economic recession of 2008. KSH (2015) indicators about income show that between 2005 and 2012 average yearly growth was 3.1 percent, with the highest level being 8.3 percent and lowest -0.8 percent. Income grew during five of the seven years, and even the years of decline witnessed only minor setbacks that might even be considered times of stability rather than major decline. Between 2005 and 2009 income growth ranged between -0.8 and 4.6 percent, consisting of two years growing at around 4 percent, followed by two years of stagnation. However, the period after 2009 presents a more interesting pattern.

During the two years that lead to consumer confidence dropping to its historically lowest point (in 2012), the argument of Duesenberry regarding the highest level of past income to impact present spending habits may be an important factor to consider. From 2009 to 2010, after two years of stagnation,

income growth peaked at 8.3 percent, the highest level since 2005, and almost twice as high as the growth experienced in 2006 and 2007. This lead to an increase in spending (4.7 percent) in the following year (considering the findings of Katona and Mueller [1968] that there is a time lag between changes in income and changes in spending), even exceeding inflation (3.9 percent). Expectations about an increase in income of 8 percent may have been defined at that time; however, the following years did not support such an improvement.

By 2011, income grew only by 5.3 percent and by 2012 only by 0.6 percent, indicating stability rather than growth, compared to previous years. By 2012, inflation was at 5.7 percent, and spending was only growing by 3.2 percent, meaning that individuals had to cut back on total spending to compensate for inflation that could not be covered by (lack of) income growth. Instead of financial prosperity, people may have had to downgrade their aspirations simply to survive the hard times and minimize losses; a major change compared to the situation just two years prior.

These findings lead to the strong assumption that while in 2010 the financial situation was developing so positively that it led individuals to believe it would last, by 2012 the speed of development came to a halt and the lack of income growth and increase in prices left individuals feeling discontent, especially considering that they even had to reduce their total consumption level, not only downgrade their aspirations.

Furthermore, the high level of variability across the years – with two years of income growth followed by two years of stagnation, followed by two years with significant growth leading to another year of stagnation – probably made it extremely challenging for people to evaluate the adequacy of their financial situations and predict whether there was any promise for the future. According to Tversky and Kahneman (1974), "the internal consistency of a pattern of inputs is a major determinant of one's confidence in predictions based on these inputs." Individuals may have ended up losing confidence during a time of major changes such as the years before 2012, intensifying the negative impact of referencing that originated from the aspirations that were set quite high and then remained unmet.

CONCLUSION

The main intention of the author of this paper was to raise awareness about the problems of accepting the simple solutions suggested by some economic and social indexes, and to emphasize their temporary biases. As more attention is

being paid to the accuracy of conclusions that are drawn from these measures, and due to the significant problems that are caused when such standard measures fail, it is more important than ever that the economic and social disciplines create a detailed understanding of economic and social processes.

The initial situation that the research focused on was the contradiction between the trends in consumer confidence and spending in Hungary in 2012. On a global comparison, Hungarian society had become the least confident country by the end of 2011/ beginning of 2012. This low level of confidence cannot be explained by reference to GDP, nor by the level of household expenditure, as other CEE countries had similar – and in some cases even lower – GDP or expenditure levels, but significantly higher confidence than Hungary. This fact draws attention to an even more interesting situation: it is not only the absolute level of confidence that is challenging to explain, but also the intensity of its decline, considering that this exceeded the rate for all other countries in the comparison, in every time period examined.

Based on the theory of permanent income, the empirical findings of Bram and Ludvigson (and later by Vadas, as well as the recommendations of the National Bank of Hungary), the assumption was made that consumer confidence should predict spending. However, comparison of the general confidence trend and spending indicated a contradiction.

The first set of explanations for this situation were based on the Keynesian approach to spending, assuming that spending primarily depends on income and on changes in the level of income. The data reveal that income did indeed change in the same magnitude and direction as spending. However, in the second half of the period under investigation consumer confidence continued to decline even though income exceeded spending. This raises the questions why confidence declined in a period of prosperity, and also why individuals did not reduce spending in the longer term if they lacked both income and confidence. Inflation explains spending growth for the majority of the examined periods, but fails to explain each and every time period, especially the years between 2010 and 2012 when confidence significantly declined in an economic environment while income, as well as spending, grew.

The answer is supplied by the relative income hypothesis. Numerous theoretical findings suggest that, beyond level of income, income distribution should also be taken into consideration. This benchmarking approach supports the claim (through several measures that indicate growth in income inequality and poverty) that the gap between the actual financial situation of individuals and expectations may have led to a decline in consumer confidence. In addition, aspirations may have been quite high: in 2010, when confidence started to decline significantly (to its lowest point by 2012), income increased at rapid pace, and

the fact that spending in the following year exceeded inflation suggests that individuals expected their income growth to remain sustainable. However, by 2012 income had stagnated, forcing people to lower not only their aspirations, but also their real spending. This may have further amplified the impact of the growing income gap, and led to the historical drop in consumer confidence.

What the previous findings highlight is that drawing conclusions only from knowledge about confidence, income, or inflation separately may be misleading. It is not only the entirety of these factors that should be taken into consideration when estimating the level of spending or trying to understand consumer confidence, but – and perhaps even more importantly – the situation of relative income; more specifically, the gap between reality and aspirations; the latter being partly the product of social benchmarking as well as past income peak.

With the importance of social circumstances in analysis having been revealed, it is recommended that research, which follows, investigates the determinants that may impact aspirations using an approach that is not focused on income. Considering the most relevant and frequently mentioned phenomena in Hungary, the main focal points for this research should be level of trust (which may impact the commonly mentioned stereotype of the high level of pessimism in Hungary), the definitions of values, and changes in these (considering that Hungary was and probably still is a country that places high importance on material values and conformity), and even measures such as corruption or political stability (which may erode/increase trust in society and predictability).

As the final step of this thorough analysis, and to clarify all the details of the phenomenon, the magnitude of the determinants that may have impacted changes in spending and confidence should be statistically analyzed. These findings should then be applied to the countries of comparison to reveal whether they explain not just trends in Hungarian confidence and spending, but also their relative levels in an international comparison. Findings from this second part of such a research endeavor will be described by the author in a forthcoming paper.

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2.2.3.4. Az egy főre jutó éves kiadások részletezése COICOP-csoportosítás, jövedelmi tizedek (decilisek), régiók és a települések típusa szerint: https://www.ksh.hu/docs/hun/xstadat/xstadat_eves/i_zhc021a.html

2.2.1.1. Az összes háztartás adatai jövedelmi tizedek (decilisek), régiók és a települések típusa szerint: http://www.ksh.hu/docs/hun/xstadat/xstadat_eves/i_zhc014a.html

3.6.1 A fogyasztóiár-index: https://www.ksh.hu/docs/hun/xstadat/xstadat_eves/i_qsf001.html

2.2.2.1. A szegénységgel vagy társadalmi kirekesztődéssel kapcsolatos fontosabb indikátorok: http://www.ksh.hu/docs/hun/xstadat/xstadat_eves/i_zaa007.html

2.1.53. Az alkalmazásban állók havi nettó átlagkeresete a nemzetgazdaságban: http://www.ksh.hu/docs/hun/xstadat/xstadat_evkozi/e_qli018d.html

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